

REMARKS

Applicants appreciate the Examiner's thorough examination of the subject application and request reconsideration of the subject application based on the foregoing amendments and the following remarks.

Claims 1-121 are pending in the subject application. Claims 14-116 are withdrawn from consideration as the result of an Examiner's earlier restriction requirement.

Certain of the withdrawn claims, claims 82-86 and 91-116 have been canceled in the foregoing amendment whereas other of the withdrawn claims have not been canceled. As discussed hereinafter, Applicants submit that it is premature and thus, not appropriate to cancel the other withdrawn claims at this time. In view of the Examiner's earlier restriction/ election requirement, Applicants reserve the right to present the above-identified canceled, withdrawn claims in a divisional application.

Claims 1-3 and 117-121 stand rejected under 35 U.S.C. §103¹.

Claim 1 was amended for clarity and to more distinctly claim Applicants' invention.

Although claim 87 is indicated as being withdrawn, it also was amended similarly to claim 1 in the foregoing amendment for clarity and to more distinctly claim Applicants' invention.

Claim 117 was canceled and replaced by new claim 124. The added claim was written so as to be in dependent form.

¹ In the above-referenced Office Action, the detailed comments for the rejection of claims 1-10, 117-120 provides that the claims stand rejected under 35 U.S.C. §102(e). Applicants, however, have treated the rejection as being under 35 U.S.C. §103 in view of the fuller context of the Office Action as well as the specific grounds for rejection being written as a rejection under §103.

Claims 122, 123 and 125 were added to more distinctly claim aspects/ embodiments of Applicants' invention. In this regard, Applicants would note that new claim 123 is related to withdrawn claim 87.

In the foregoing amendment certain of the dependent claims, claims 2-6, 11-13, 88-90 and 118-121 were re-written so as to be in multiple dependent form.

The amendments to the claims are supported by the originally filed disclosure.

35 U.S.C. 103 REJECTIONS

Claims 1-13 and 117-121 stand rejected under 35 U.S.C. § 103 as being unpatentable over the cited prior art for the reasons provided on pages 3-8 of the above-referenced Office Action. Applicants respectfully traverse. The following addresses the specific rejections provided in the above-referenced Office Action.

CLAIMS 1-10 & 117-120

Claims 1-10 and 117-120 stand rejected as being unpatentable over Kobayashi et al. [USP 5,973,661; "Kobayashi"] in view of Gough, et al. [USP 5,638,501; "Gough"] for the reasons provided on pages 3-6 of the above referenced Office Action. Applicants respectfully traverse.

As indicated herein, claim 117 was canceled and replaced by new claim 124. This new claim also was written so as to depend from claim 1. As such, Applicants do not believe that is necessary to further address the within rejection further as to claim 117.

As grounds for the rejection, the above-referenced Office Action provides that Kobayashi teaches the invention substantially as claimed except it is admitted that Kobayashi does not teach that a part or entirety of either or both of the data signal line drive circuit and the scan signal line drive circuit is provided in plurality so as to realize mutually different display configurations. It is further asserted in the Office Action, that Gough teaches that a part or entirety of either or both of the data signal line drive circuit and scan signal line drive circuit is provided in plurality so as to realize mutually different display configurations. In particular and as support for the rejection, the Office Action refers to col. 2, lines 34-56 and the Abstract in Gough for teaching that a part or entirety of either or both of the data signal line drive circuit and scan signal line drive circuit is provided in plurality so as to realize mutually different display configurations. As such, the Office Action asserts that it would have been obvious to one of ordinary skill in the art to provide the device as taught by Kobayashi with the features as taught by Gough so as to yield the invention claimed by Applicants.

Notwithstanding the following remarks, and in the interests of advancing prosecution, Applicants have amended claim 1 so as to make clear that the sections which are in plurality are not sections for memorizing value data like that in Gough, but are sections for selecting and supplying voltages. As such, Applicants believe that the foregoing amendment clearly distinguishes the claimed invention from the combination of references.

Applicants claim, claim 1, an image display device including a pixel array, a data signal driving circuit, a scan signal line driving circuit, a timing circuit, and a video processing circuit. The pixel array is constituted by a plurality of pixels for displaying an image and the data signal line

drive circuit supplies a video signal to the pixel array and the scan signal line drive circuit controls writing of the video signal to the plurality of pixels. The timing circuit supplies a timing signal to the data signal line drive circuit and the scan signal line drive circuit and the video signal processing circuit supplies the video signal to the data signal line drive circuit. Further, a part or entirety of either or both of the data signal line drive circuit and the scan signal line drive circuit is provided in plurality so as to realize mutually different display configurations, where the part includes a voltage select-supplying section for selecting and supplying voltages each of which is supplied during one horizontal period to each data signal line, so as to realize mutually different display configurations.

As provided in the subject application, the provision of the parts or entireties of the data signal line drive circuit are capable of realizing mutually different configurations that enables video displays in different formats. In other words, the parts or entireties of the data signal line drive circuit are provided in accordance with a plurality of display formats and selectively operated depending on the need of the user, kind of input signal, and environmental conditions, enabling a video display in a format that is most suited to a purpose.

As indicated in the discussion in col. 2, line 66-col. 3, line 15 of Gough, two embodiments are disclosed and taught for displaying an overlay image according to the invention disclosed and taught in Gough. In Gough, the pen computer system includes two (2) computer processes running on the computer CPU that each can develop images to be outputted to the display alone or at the same time. In one embodiment, the video driver circuitry of the computer is arranged so as to be receptive to the outputs of the two computer processes. It is clear from the discussion that follows in Gough, that the computer processes are configured and arranged so that the overlaid image is

outputted to the video driver circuitry. The combined image is then outputted from the video driver circuitry to the illustrated liquid crystal display as shown in figure 1 of Gough.

In the other embodiment, the image outputs of the two computer processes are each inputted to the video driver circuitry of the computer. It is further described in Gough that the video driver circuitry is configured and arranged so as to the blend the two image outputs to create the overlaid image. See also col. 14, lines 1-22 and Figure 19. After such blending, the blended image is outputted from the video driver circuitry of the computer and is inputted to the display, which in the illustrative embodiment of figure 1 in Gough is a liquid crystal display (LCD).

In sum, while the arrangement in Gough includes two RAM screen buffers (*i.e.*, RAM screen buffer and RAM overlay screen buffer), Gough does not disclose, teach nor suggest anywhere in any techniques or modifications to the liquid crystal display. In fact, Gough is complete silent about the construction of the display. This not surprising, because the entire discussion in Gough is directed to creating the overlaid images within the pen computer system of Gough. Consequently, it necessarily follows that it is not possible for Gough to disclose, teach or suggest that a part or entirety of either or both of the data signal line drive circuit and the scan signal line drive circuit of a liquid crystal display is/are provided in plurality so as to realize mutually different display configurations. It also necessarily follows, that there can be no teaching, suggestion or motivation offered in either of Kobayashi or Gough to modify the device disclosed in Kobayashi so as to yield the invention claimed by Applicants. Moreover, it can hardly be said that either of these references also includes any teaching that such a modification to the device disclosed in Kobayashi would be reasonable successful. Therefore, it is respectfully submitted that the

combination of Kobayashi and Gough cannot yield the invention claimed by Applicants and set forth in claim 1.

As to claims to 2-10, Applicants respectfully submit that at least because of their dependency from a base claim that is considered to be allowable, each of claims 2-10 are considered to be patentable over the cited combination of references.

Applicants claims to 118-120 were amended so that each now depends ultimately from claim 1, Applicants respectfully submit that at least because of their dependency from a base claim (claim 1) that is considered to be allowable, each of claims 118-120 are considered to be patentable over the cited combination of references.

It is respectfully submitted that claims 1-10 and 118-120 are patentable over the cited reference(s) for the foregoing reasons.

CLAIM-11

Claim 11 stands rejected under 35 U.S.C. §103 as being unpatentable over Kobayashi et al. [USP 5,973,661; “Kobayashi”] in view of Gough, et al. [USP 5,638,501; “Gough”] and further in view Taguchi et al. [USP 6,181,317; “Taguchi”] for the reasons provided on pages 6-7 of the above referenced Office Action. Applicants respectfully traverse.

Claim 11 depends from claim 1. As indicated in the discussion above, the combination of Kobayashi and Gough does not disclose, teach nor suggest the image display device as set forth in claim 1, and in particular Gough does not disclose, teach nor suggest that a part or entirety of either or both of the data signal line drive circuit and scan signal line drive circuit of a liquid crystal

display is provided in plurality so as to realize mutually different display configurations. As also indicated above, there is no teaching, suggestion nor motivation offered in either of Kobayashi or Gough to modify the device disclosed in Kobayashi so as to yield the invention claimed by Applicants. Moreover, it cannot be said that either of these references includes any teaching, disclosure or suggestion that such a modification to the device disclosed in Kobayashi would be reasonable successful. Furthermore, it is clear from the foregoing remarks that modifying the image display device of Kobayashi so as to yield the image display device of claim 1, necessarily means that the operation of the resultant display device would be necessarily different from the way in which the display device in Kobayashi was intended to operate.

It thus is respectfully submitted that claim 11 is distinguishable from the cited combination of references at least for the foregoing reasons. As to the tertiary reference, Taguchi, this reference is being utilized for an asserted limited teaching of the added features and limitations of claim 11. As such, it necessarily follows, that the above-described shortcomings as to the combination of Kobayashi and Gough are not overcome.

It is respectfully submitted that claim 11 is patentable over the cited reference(s) for the foregoing reasons.

CLAIM-12

Claim 12 stands rejected under 35 U.S.C. §103 as being unpatentable over Kobayashi et al. [USP 5,973,661; “Kobayashi”] in view of Gough, et al. [USP 5,638,501; “Gough”] and further in view of Sohawa et al. [USP 6,353,460; “Sokawa”]. Applicants respectfully traverse.

Claim 12 depends from claim 1. As indicated in the discussion above, the combination of Kobayashi and Gough does not disclose, teach nor suggest the image display device as set forth in claim 1, and in particular Gough does not disclose, teach nor suggest that a part or entirety of either or both of the data signal line drive circuit and scan signal line drive circuit of a liquid crystal display is provided in plurality so as to realize mutually different display configurations. As also indicated above, there is no teaching, suggestion nor motivation offered in either of Kobayashi or Gough to modify the device disclosed in Kobayashi so as to yield the invention claimed by Applicants. Moreover, it cannot be said that either of these references includes any teaching, disclosure or suggestion that such a modification to the device disclosed in Kobayashi would be reasonable successful. Furthermore, it is clear from the foregoing remarks that modifying the image display device of Kobayashi so as to yield the image display device of claim 1, necessarily means that the operation of the resultant display device would be necessarily different from the way in which the display device in Kobayashi was intended to operate.

It thus is respectfully submitted that claim 12 is distinguishable from the cited combination of references at least for the foregoing reasons. As to the tertiary reference, Sokawa is being utilized for an asserted limited teaching of the added features and limitations of claim 12. As such, it necessarily follows, that the above-described shortcomings as to as to the combination of Kobayashi and Gough are not overcome.

Applicants also respectfully disagree with the characterization of what is asserted as being disclosed and taught in Sokoawa. As indicated in the discussion above regarding claim 1, for the image display device of the present invention, a part or entirety of the data signal line drive circuit is

provided in plurality so as to realize mutually different display configurations. It is clear from col. 11, lines 4-8 of Sokoawa that the display device 1050 is capable of displaying a video signal having a predetermined display format. The discussion in Sokawa referred to in the Office Action, when read in light of the discussion in cols 11-12 thereof, make clear that the image processor converts the format of the video signals into the predetermined display format of the display device. As such, the conversion process described and taught in Sokawa is accomplished external to the circuitry of the display device. It also appears that Sokawa nowhere describes the circuitry involved with the operation of the display device.

Thus, it can hardly be said that Sokawa disclose, teaches or suggest a display device in which the part or entirety of the data signal line drive circuit is provided in plurality, in particular so as to realize mutually different display configurations for such a display device. It also can hardly be said that Sokawa also discloses, teaches or suggests, as is set forth in claim 12, that at least one of the parts and entireties of the data signal line drive circuit writes image data with a predetermined delay from another part or entirety of the data signal line drive circuit.

It is respectfully submitted that claim 12 is patentable over the cited reference(s) for the foregoing reasons.

CLAIMS 13 & 121

Claims 13 and 121 stand rejected under 35 U.S.C. §103 as being unpatentable over Kobayashi et al. [USP 5,973,661; “Kobayashi”] and further in view Imamura [USP 6,232,949]. Applicants respectfully traverse.

Claims 13 and 121 depend respectively from claims 1 and 117. As indicated in the discussion above, the combination of Kobayashi and Gough does not disclose, teach nor suggest the image display device as set forth in either of claims 1 and 117, and in particular Gough does not disclose, teach nor suggest that a part or entirety of either or both of the data signal line drive circuit and scan signal line drive circuit of a liquid crystal display is provided in plurality so as to realize mutually different display configurations. As also indicated above, there is no teaching, suggestion nor motivation offered in either of Kobayashi or Gough to modify the device disclosed in Kobayashi so as to yield the invention claimed by Applicants. Moreover, it cannot be said that either of these references includes any teaching, disclosure or suggestion that such a modification to the device disclosed in Kobayashi would be reasonable successful. Furthermore, it is clear from the foregoing remarks that modifying the image display device of Kobayashi so as to yield the invention of either of claims 1 and 117, necessarily means that the operation of the resultant display device would be necessarily different from the way in which the display device in Kobayashi was intended to operate.

It thus is respectfully submitted that claims 13 and 121 are distinguishable from the cited combination of references at least for the foregoing reasons. As to the secondary reference, Imamura is being utilized for an asserted limited teaching of the added features and limitations of claims 13 and 121. As such, it necessarily follows, that the above-described shortcomings as to as to the combination of Kobayashi and Gough or Kobayashi are not overcome.

Imamura merely teaches the technique of providing driver circuits or drivers at both ends of the scan lines so the same voltage is applied simultaneously to both ends so as to drive the scan

line. As such, it can hardly be said that Imamura discloses, teaches or suggests the image display device of the present invention in which a part or entirety of either or both of the data signal line drive circuit and the scan signal line drive circuit is provided in plurality so as to realize mutually different display configurations.

It is respectfully submitted that claims 13 and 121 are patentable over the cited reference(s) for the foregoing reasons.

The following remarks also shall apply to each of the foregoing.

As provided in MPEP 2143.01, obviousness can only be established by combining or modifying the teachings of the prior art to produce the claimed invention where there is some teaching, suggestion, or motivation to do so found either in the references themselves or in the knowledge generally available to one of ordinary skill in the art. *In re Fine*, 837 F. 2d 1071, 5 USPQ2d 1596 (Fed. Cir. 1988); *In re Jones*, 958 F. 2d 347, 21 USPQ2d 1941 (Fed. Cir. 1992). As provided above, the references cited, alone or in combination, include no such teaching, suggestion or motivation.

Furthermore, and as provided in MPEP 2143.02, a prior art reference can be combined or modified to reject claims as obvious as long as there is a reasonable expectation of success. *In re Merck & Co., Inc.*, 800 F.2d 1091, 231 USPQ 375 (Fed. Cir. 1986). Additionally, it also has been held that if the proposed modification or combination would change the principle of operation of the prior art invention being modified, then the teachings of the references are not sufficient to render the claims *prima facie* obvious. Further, and as provided in MPEP-2143, the teaching or

suggestion to make the claimed combination and the reasonable suggestion of success must both be found in the prior art, not in applicant's disclosure. *In re Vaeck*, 947 F.2d 488, 20 USPQ2d 1438 (Fed. Cir. 1991). As can be seen from the forgoing discussion regarding the disclosures of the cited references, there is no reasonable expectation of success provided in the reference(s). Also, it is clear from the foregoing discussion that the modification suggested by the Examiner would change the principle of operation of the device disclosed in Kobayashi.

As the Federal circuit has stated, "[t]he mere fact that the prior art may be modified in the manner suggested by the Examiner does not make the modification obvious unless the prior art suggested the desirability of the modification." *In re Fritch*, 972 F.2d 1260, 1266, 23 USPQ2d 1780, 1783-84 (Fed. Cir. 1992). Obviousness may not be established using hindsight or in view of the teachings or suggestions of the inventor. *Para-Ordance Mfg. v. SGS Importers Int'l, Inc.*, 73 F.2d 1085, 1087, 37 USPQ2d 1237, 1239 (Fed. Cir. 1995).

It is respectfully submitted that for the foregoing reasons, claims 1-13 and 117-121 are patentable over the cited reference(s) and satisfy the requirements of 35 U.S.C. §103. As such, these claims, including the claims dependent therefrom are allowable.

CLAIMS 14-116

In the above-referenced Office Action, the Examiner indicated that any response should include a cancellation of the non-elected claims or other appropriate action.

Applicants have not canceled all of the withdrawn claims as requested as such action is not appropriate at this time. Certain of the withdrawn claims, namely claims 14-81 depend directly or

ultimately from claim 1, as such claim 1 is sub-generic to withdrawn claims 14-81. Thus, if claim 1 is found allowable, then claims 14-81 should be rejoined with the other claims of the subject application so claims 14-81 can pass to issue along with allowed claim 1.

As to certain of the other withdrawn claims, namely claims 87-90 it would appear to Applicants that if claim 1 is found allowable as herein described over the cited art, then at least one feature of each of these claims also would be distinguishable from the cited art forming the within rejections. As such, it would appear that these claims also could pass to issue without further examination. It should be recognized that this remark should not be construed that these claims are allowable only because of this feature, but rather that these claims are considered to be allowable at least because of this feature.

As to withdrawn claims 82-86 and 91-116, Applicants canceled each of these claims in the foregoing amendment.

CLAIMS 122-125

As indicated above, claims 122, 123 and 125 were added to more distinctly claim embodiments/ aspects of the present invention. As also indicated above, claim 124 was added to replace canceled claim 117. These new/ added claims are clearly supported by the originally filed disclosure, including the originally filed claims. It also is respectfully submitted that these new/ added claims are patentable over the cited prior art on which the above-described rejection(s) are based.

OTHER MATTERS

discuss as needed missing PTO-1449, no acknowledgement of certified copy of foreign application, other misc matters that should be preferably raised now before issuance of a notice of allowance.

Applicants filed a Supplemental Information Disclosure Statement/ Search Report Information Disclosure Statement dated April 15, 2004 in the USPTO, which IDS pre-dates the above-referenced Office Action. Accordingly, Applicants respectfully request that the Examiner reflect their consideration of this IDS in the next official communication from the USPTO. Applicants also respectfully request the Examiner to call the undersigned collect and the below number in the event that this IDS has not been received by the Examiner and thus needs to be again submitted by Applicants for the Examiner's consideration.

It is respectfully submitted that the subject application is in a condition for allowance. Early and favorable action is requested.

Applicants believe that additional fees are not required for consideration of the within Response. However, if for any reason a fee is required, a fee paid is inadequate or credit is owed

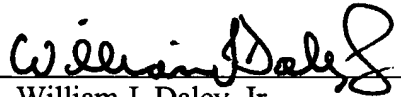
Applicant: Y. Kubota, et al.
U.S.S.N.: 09/851,885
Response to Final Office Action
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for any excess fee paid, the Commissioner is hereby authorized and requested to charge Deposit

Account No. **04-1105**.

Respectfully submitted,
Edwards & Angell, LLP

Date: October 14, 2004

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